UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,614	02/06/2002	Yuqing Xu	219175US0	4478

22850 7590 07/09/2003

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER
RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
1756	8

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/066,614	XU ET AL.	
	Examiner	Art Unit	
	Christopher D RoDee	1756	

-- The MAILING DATE of this communication appears on the cover she t with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *8,9 and 11-13* is/are allowed.

6)☒ Claim(s) *1-7,10 and 14-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

The IDS filed 8 April 2003 has been considered. The Examiner notes that the European Search Report shows that EP 542051 is particularly relevant if taken alone. The Examiner has carefully reviewed the document but does not see a disclosure of an agglomeration and aging step as claimed with the claimed relationships C1 and C2.

Claim Rejections - 35 USC §§ 102 & 103

Claims 1-6 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel *et al.* in US Patent 5,723,252 in view of Mahalek *et al* in US Patent 4,659,641.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel *et al.* in US Patent 5,723,252 in view of Kmiecik-Lawrynowicz *et al.* in US Patent 5,965,316 and further in view of Tomono *et al.* in US Patent 4,997,739, still further in view of in view of Mahalek *et al* in US Patent 4,659,641.

Claims 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patel *et al.* in US Patent 5,723,252 in view of Yamashita *et al.* in US Patent 5,576,393 and further in view of Mahalek *et al* in US Patent 4,659,641.

These rejections were set forth in the last Office action. Applicant has amended the claims to include a limitation specifying that a surfactant is added or the pH value of the agglomerate liquid is raised before subjecting the liquid to the aging step. Applicant asserts that the newly added step is not taught by the Patel reference (response p. 7, bottom). The § 103 rejections are traversed on the same basis. The rejection will be discussed cumulatively here.

The § 102 rejection over Patel alone has been modified to a § 103 rejection in view of Mahalek. The previously applied § 103 rejections have also been modified to be in view of Mahalek.

The Examiner has carefully reviewed the general disclosure of Patel, as well as the specific examples. Patel discloses a step (iii) of heating the above sheared blend below the glass transition temperature (Tg) of said resin particles to form electrostatically bound toner size aggregates followed by a step (iv) of adding a stabilizer of in situ tricalcium phosphate solid particulants generated from a solution of calcium chloride and trisodium phosphate. The in-situ TCP acts as a stabilizer (col. 7, l. 21-23; col. 8, l. 6-12) to prevent the aggregates from further aggregation, retain the particle size, and the GSD of the aggregates (col. 3, l. 63 - col. 4, l. 1). The aggregates then undergo a step of aging at step (v) where the aggregates are heated for a period of time to undergo coalescence (Abstract).

In Example II the toner components are heated to a temperature of 45 °C in order to perform aggregation, followed by addition of in-situ TCP, which acts as a stabilizer (col. 14, l. 46-55) of the aggregates. The aggregates are then held at 3 hours for 45 °C (an aging process) and then the aggregates are coalesced.

Patel does not disclose adding a surfactant as well as the in-situ TCP to the aggregates, however, the reference is clearly concerned with maintaining the aggregates in a dispersed state as well we maintaining their size and GSD. Surfactants are disclosed by Patel for maintaining the dispersed condition of the solid components. For example, earlier in Example II a surfactant is added to maintain the dispersed condition of the pigment. Thus Patel shows that both surfactants and TCP are effective to maintain toner components in a dispersed state.

Mahalek discloses that a mixture of tricalcium phosphate (TCP) and a surfactant are combined to maintain components in a dispersed condition for toner preparation. (See Example 1) or

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a surfactant to the aggregates of Patel before coalescence (i.e., before aging) because the reference specifically desires the aggregates to remain dispersed in the liquid without further change and the artisan would have found it obvious to add other acceptable materials (e.g., surfactants) to the reaction medium to ensure this result. Because Patel specifically teaches that surfactants are effective to maintain the toner components in dispersion and Mahalek shows that a mixture of tricalcium phosphate (TCP) and a surfactant are effective to maintain components in a dispersed state the artisan would have ample motivation to add a surfactant to the reaction mixture at step (iv) with the TCP. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Thus each rejection as previously set forth is properly combinable with Mahalek for the reasons given herein.

This new grounds of rejection is fully responsive to applicant's remarks.

Allowable Subject Matter

Claims 8, 9, and 11-13 are allowed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
July 3, 2003

CHRISTOPHER RODEE
PRIMARY EXAMINER